Amendments to the Claims:

This listing of claims will replace all prior versions, and listing of claims in the application.

1-40. (canceled)

41. (previously presented) An isolated GDNFRα polypeptide comprising an amino acid sequence having at least 95% identity to the amino acid sequence as set out between amino acids Asp25 and Ser468 of SEQ ID NO: 2, wherein said polypeptide is capable of binding GDNF and activating Ret tyrosine kinase.

42. (previously presented) The isolated polypeptide of claim 41 comprising an amino acid sequence having at least 99% identity to the amino acid sequence as set out between amino acids Asp25 and Ser468 of SEQ ID NO: 2.

43. (currently amended) The isolated polypeptide of claim 41 comprising the GDNFRα extracellular domain sequence as set out between amino acids Asp25 and ~~Gly427~~ Ser468 of SEQ ID NO: 2.

44. (previously presented) A chimeric polypeptide comprising an amino acid sequence having at least 95% identity to the amino acid sequence as set out between amino acids Asp25 and Ser468 of SEQ ID NO: 2, fused, at its C-terminus to the N-terminus of an immunoglobulin heavy chain constant domain sequence, wherein said chimeric polypeptide is capable of binding GDNF and activating Ret tyrosine kinase.

45. (previously presented) The chimeric polypeptide of claim 44 wherein said amino acid sequence has at least 99% identity to the amino acid sequence as set out between amino acids Asp25 and Ser468 of SEQ ID NO: 2.

46. (currently amended) The chimeric polypeptide of claim 44 wherein said amino acid sequence comprises the GDNFRα extracellular domain sequence as set out between amino acids Asp25 and ~~Gly427~~ Ser468 of SEQ ID NO: 2.

47-58. (canceled)

59. (previously presented) A composition comprising the GDNFRα polypeptide of claim 41 and a physiologically acceptable carrier.

60. (previously presented) A composition comprising the chimeric polypeptide of claim 44 and a physiologically acceptable carrier.

61. (new) An isolated GDNFRα polypeptide comprising an amino acid sequence having at least 95% identity to the amino acid sequence as set out between amino acids Asp25 and Gly427 of SEQ ID NO: 2, wherein said polypeptide is capable of binding GDNF and activating Ret tyrosine kinase.

62. (new) The isolated polypeptide of claim 61 comprising an amino acid sequence having at least 99% identity to the amino acid sequence as set out between amino acids Asp25 and Gly427 of SEQ ID NO: 2.

63. (new) A chimeric polypeptide comprising an amino acid sequence having at least 95% identity to the amino acid sequence as set out between amino acids Asp25 and Gly427 of SEQ ID NO: 2, fused, at its C-terminus to the N-terminus of an immunoglobulin heavy chain constant domain sequence, wherein said chimeric polypeptide is capable of binding GDNF and activating Ret tyrosine kinase.

64. (new) The chimeric polypeptide of claim 63 wherein said amino acid sequence has at least 99% identity to the amino acid sequence as set out between amino acids Asp25 and Gly427 of SEQ ID NO: 2.